

Amendments to the Claims

1. (currently amended): An x-ray radiation source comprising an evacuated chamber with a window for x-ray radiation output, in which an electron emitter and a transparent anode are positioned to generate x-ray radiation, at least one focusing electron lens, and a device shaping the x-ray radiation beam placed outside the chamber but attached to it, wherein the anode is positioned before a focus of said electron lens along the electron beam path and wherein the device shaping the x-ray radiation beam is an aperatured diaphragm, the center of said [diaphragm] aperature being placed at the focus of said electron lens.
2. (original): An x-ray radiation source of Claim 1, wherein the anode is a target made of metal foil deposited onto a substrate made of a small-atomic-number material.
3. (previously amended): An x-ray radiation source of Claim 1 wherein the anode is tightly vacuum-attached to the window for x-ray radiation output and positioned inside that window.
4. (original): An x-ray radiation source of Claim 3, wherein the anode is equipped with a cooling facility.
5. (previously amended): An x-ray radiation source of Claim 1, wherein the electron lens has a point focus.
6. (previously amended): An x-ray radiation source of Claim 1, wherein the electron lens has a dash-like focus.
7. (previously amended): An x-ray radiation source of Claim 1, wherein the electron source used is a pulse source.